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DEFENSE SYSTEMS MANAGEMENT COLLEGE



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PROGRAM MANAGEMENT COURSE INDIVIDUAL STUDY PROGRAM

THE ROLE OF HEADQUARTERS
AIR FORCE SYSTEMS COMMAND
IN DEVELOPMENT AND
ACQUISITION MANAGEMENT

Study Project Report
PMC 77-1

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FORT BELVOIR, VIRGINIA 22060

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THE ROLE OF HEADQUARTERS
AIR FORCE SYSTEMS COMMAND IN
DEVELOPMENT AND ACQUISITION MANAGEMENT

STUDY PROJECT REPORT
Individual Study Program

Defense Systems Management College
Program Management Course

Class 77-1

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Earl A. Pontius
Lt Col USAF
May 1977

Study Project Advisor - Mr. John Mathias

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DEFENSE SYSTEMS MANAGEMENT COLLEGE,

STUDY TITLE:

The Role of Headquarters Air Force Systems Command in Development and Acquisition Management

STUDY PROJECT GOALS:

To describe and provide insight into the organization, responsibilities, and key functions of Headquarters Air Force Systems Command (HQ AFSC) in an effort to promote increased understanding and management effectiveness among personnel participating in the USAF acquisition process.

STUDY REPORT ABSTRACT: The study outlines the responsibilities and activities of key Headquarters organizations and positions; discusses the development planning function including mission area planning and investment strategy; describes the process by which current programs are directed, funded, and monitored; and concludes with a summary of the Headquarters policy function and policy changes currently being implemented. An overview of the organization and resources of the Command as a whole are included for readers not familiar with Air Force Systems Command. The study was accomplished using personal experience, interviews with members of HQ AFSC, briefings, and HQ AFSC publications and directives. The study report was written primarily for personnel recently assigned to HQ AFSC; however, it should also be useful to personnel in AFSC field organizations and other organizations who must interface with HQ AFSC in the performance of their duties.

SUBJECT DESCRIPTORS: Program Management, Planning/Programming/Budgeting System (PPBS), Research Development Test and Evaluation (RDT&E).

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Earl A. Pontius Lt Col., USAF	PMC 77-1	May 1977

EXECUTIVE SUMMARY

Headquarters Air Force Systems Command (HQ AFSC) performs an essential role in the management of the USAF development and acquisition process. Headquarters involvement begins early in the development planning stage, increases as programs are put on contract and enter advanced and full scale development, and continues through production until the system has been successfully delivered to the user and is transitioned to the Air Force Logistics Command.

The objective of this paper is to provide newly assigned members of the HQ AFSC staff, and other personnel who interface with HQ AFSC, with a better understanding of the organization and role of the Headquarters. It is hoped that the paper will assist them in preparing for their duties and increase their effectiveness in the management of AFSC programs.

ACKNOWLEDGEMENTS

I would like to express special appreciation to Col. Donald R. Griesmer, Director of Acquisition and Engineering Policy, DCS/Systems, Headquarters Air Force Systems Command, whose briefing on HQ AFSC responsibilities and functions provided the outline and a major source of data for this report. I would also like to thank Mr. Walter L. Kraus, Chief, Office of History, Headquarters Air Force Systems Command, for his assistance in obtaining data on current statistics and inputs on recent policy changes.

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SECTION I

INTRODUCTION

The purpose of this paper is to provide Air Force personnel who are involved in the systems acquisition process with a better appreciation and understanding of the role and functions performed by Headquarters Air Force Systems Command (HQ AFSC). This task will be approached by first providing an overview of the Command for those not familiar with AFSC's general functions, organizational structure and resources. This will be followed by a description of the major organizational activities of the Headquarters—the nine Deputies and the Director of Science and Technology—and the role performed by the Systems Officer (SYSTO) as the Headquarters focal point for his assigned program.

The next two sections deal with the development planning process and actions that generally precede program start-up and then the actions taken by the Headquarters to provide direction for, assist, and monitor on-going programs. The final section addresses the policy function of the Headquarters and changes in Command policy that have recently been implemented.

The paper is written primarily for personnel newly assigned to AFSC staff positions, but it should also prove useful to people in AFSC field activities and other organizations who must interface with the Headquarters in the performance of their duties.

SECTION II

AIR FORCE SYSTEMS COMMAND OVERVIEW

Mission

As stated in Air Force Regulation (AFR) 23-8, 10 September 1971, the mission of the Air Force Systems Command is to "advance aerospace science and technology, and apply it to the aerospace systems development and improvement, and acquire qualitatively superior aerospace systems and equipment needed to accomplish the Air Force mission."

Organization

To accomplish this mission Headquarters AFSC, located at Andrews AFB, Maryland, directs the operation of six divisions, five development test centers, four ranges, and twelve laboratories located throughout the United States. Organizationally the systems acquisition function is managed by three of the six AFSC divisions: Aeronautical Systems Division (ASD), Wright-Patterson AFB, Ohio; Electronic Systems Division (ESD), Hanscom AFB, Massachusetts; and Space and Missile Systems Organization (SAMSO), Los Angeles AFS, California. The Foreign Technology Division (FTD), Wright-Patterson AFB, Ohio, is responsible for analysis of foreign technology and threat assessment; the Air Force Contract Management Division (AFCMD), Kirtland AFB, New Mexico, oversees the management of Air Force contracts; and the Aerospace Medical Division (AMD), Brooks AFB, Texas, is concerned with evaluation of human subsystems in the

aerospace environment. The laboratories provide for the scientific and technology base while the test centers are concerned mainly with development test and evaluation. Certain components other than the three divisions named above also have acquisition functions. The Armament Development Test Center (ADTC), Elgin AFB, Florida, manages development and acquisition for munitions, while the Air Force Weapons Laboratory, Kirtland AFB, New Mexico, is primarily responsible for the acquisition of laser systems and nuclear weapons technology. The acquisition function is handled through a number of systems offices and more than 150 program managers assigned to the various field commands.

Resources

AFSC is involved in more than 200 weapon systems programs, each in a different stage of development or acquisition. They range in complexity from the simple to the sophisticated, and include areas such as avionics, space satellites, strategic and tactical aircraft, and inter-continental ballistic missiles. AFSC's budget in FY77 in support of these efforts was \$10.7 billion or more than a quarter of the total Air Force budget. However, its share of the RDT&E (3600) budget was 96 percent (\$3.65 billion). The procurement budget is also heavily weighted toward AFSC (\$9.05 billion) with the Command scheduled for 64 percent of the Air Force appropriation for aircraft (3010), 76 percent of the missile appropriation (3020), and 29 percent for "other" (3080). In calendar year 1976, the Command administered

19,466 contracts for the Air Force and other military services and government agencies, with a face value of \$51.7 billion. Foreign military sales during 1976 consisted of 432 cases valued at \$8.3 billion total. Approximately 54,700 military and civilian personnel work for AFSC—10,000 officers, 16,700 airmen, and 28,000 civilians.

Aircraft and Missiles

As of 31 December 1976, AFSC had a total of 242 aircraft for test and test support purposes. The Air Force Flight Test Center (AFFTC), Edwards AFB, California, has the largest number (76) followed by the Aeronautical Systems Division (ASD) and the Armament Development and Test Center (ADTC) with 44 and 43 respectively. Thirty-eight aircraft are on bailment to contractors. From 1 January 1976 to 31 December 1976 AFSC's aircraft flew 56,027 hours, just behind the operational commands in flying hour expenditure. During this same period, 26 missiles were either AFSC launched or were AFSC supported launches.

SECTION III

HQ AFSC ORGANIZATION AND FUNCTIONS

As indicated in Figure 1, nine Deputy Chiefs of Staff (DCS) and the Director/Science and Technology provide the principal staff assistance to the Commander in executing the AFSC mission. The major elements of a DCS are the directorates and the divisions within the directorates. Each directorate is assigned a broad spectrum of functionally related activities that are necessary to accomplish the mission of its DCS. Summaries of the major functions of each DCS and the Director/Science and Technology are provided below.

DCS/Comptroller (AC): Has prime responsibility for the financial management of the Command. Interrelates and integrates financial/programming data for management of separate functional areas as well as for the mission as a whole. Is primary advisor in financial matters and major counsellor in management matters to the Commander and his staff. Establishes Command financial policy, provides guidance, develops procedures, and supervises overall operations of assigned functions. Exercises technical supervision over comptroller activities in field organizations. Composed of four directorates: Data Automation, Cost Analysis, Programs/Budget, and Accounting and Finance.

DCS/Development Plans (XR): Assesses operational requirements, technological opportunities/risks, and system costs to develop plans for



HQ AIR FORCE
SYSTEMS COMMAND

APRIL 1977



Figure 1

new operational systems and major modifications. Serves as the interface between technology-oriented laboratory programs and system acquisition efforts. Provides the Commander with in-depth information on mission area and functional overviews and the technical options available to satisfy Air Force mission needs. Provides for mission analysis to identify new systems concepts or hardware which will improve operational capabilities. Initiates proposals for advanced development programs to demonstrate technical feasibility of hardware or techniques contemplated for the operational inventory. Performs as HQ AFSC focal point for statements of operational requirements.

DCS/Engineering and Services (DE): Is the primary advisor to the Commander on civil engineering matters. Establishes policy and programs for the development of design criteria, design, construction, and acquisition of all AFSC RDT&E and support facilities. Establishes policy and programs for the operation, maintenance, and repair of AFSC real property assets. Manages commissaries, food services functions, clothing sales stores, laundry and drycleaning services, and military housing. Defends operations and maintenance requirements, military construction requirements, military housing and other real property programs to higher authorities.

DCS/Intelligence (IN): Provides the AFSC Commander and staff with intelligence and advice concerning intelligence matters. Plans, establishes policy and procedures, issues guidance, and reviews adequacy.

DIRECTS and performs staff surveillance of AFSC scientific and technical intelligence acquisition, production, utilization and dissemination programs. Defines requirements for intelligence collection systems and manages the inter- and intra-command flow of acquisition activities. Directs Command implementation of national policy on disclosure of military information and equipment to foreign governments and international organizations. Exercises direction and control over AFSC foreign material exploitation projects and programs.

DCS/Logistics (LG): Exercises staff control and direction over all activities within the logistics functional area. Serves as AFSC office of primary responsibility for formulation, dissemination, and staff surveillance of Command logistics policies and procedures pertaining to systems and equipment acquisition, modification programs and test support.

Acts as the primary staff authority for acquisition logistics policy for selected integrated logistics support (ILS) elements, e. g., reliability/maintainability, maintenance planning, support and test equipment, supply support, transportation and packaging, technical orders, personnel and training, logistics support resource funds and logistics support management information, and special areas of interim contractor support (ICS), life cycle cost (LCC), and reliability improvement warranty (RIW).

Maintains cognizance of logistics studies of acquisition programs to insure that supportability is achieved as a fundamental part of the AFSC mission.

DCS/Personnel (DP): Advises the Commander on matters pertaining to AFSC military and civilian personnel. Establishes AFSC personnel policies, plans, programs and procedures relating to management, processing, distribution, classification, promotion, separation, and assignment control of military and civilian personnel. Directs the analysis of requirements and resource planning to ensure that AFSC will have the quality and quantity of personnel essential for accomplishment of the Air Force R&D mission.

DCS/Procurement and Manufacturing (DP): Formulates and implements policy and manages the AFSC procurement, contract management and production manufacturing functions that account for approximately \$7 billion in contract placements annually and the administration of \$50 billion in total contracts. Develops and implements changes to the Armed Services Procurement Regulation (ASPR) in support of the AFSC procurement mission. Establishes management control and exercises surveillance over AFSC procurement activities. Manually approves procurement actions not delegated to AFSC field organizations. Formulates and implements contract management policy. This includes contract administration, contractor overhead costs, contract pricing, contract terminations, subcontract management, property administration, disposition of contractor inventory, and quality assurance. Administers the DOD Plant Cognizance program for assigned plants. Also plans, formulates, implements policy and provides staff guidance and management surveillances of AFSC activi-

ties in the production/manufacturing area. This includes manufacturing planning, manufacturing technology, manufacturing and industrial engineering, manufacturing operations, industrial engineering, industrial facilities, materials management, industrial preparedness planning, labor relations, labor law compliance, and value engineering.

DCS/Systems (SD): Is the largest DCS, with ten directorates and 165 authorized personnel spaces. Serves as OPR for the acquisition of aircraft, strategic and tactical missiles, avionics, command and control systems, reconnaissance and surveillance programs, electronic warfare systems, military space programs, boosters and space support, munitions, subsystems and equipment for other programs. Ensures the formulation, coordination, approval, dissemination, interpretation and staff surveillance of AFSC policies and procedures pertaining to acquisition of systems, equipment, and modification programs. Administers and manages Program Assessment Reviews (PARs) and Command Assessment Reviews (CARs). Coordinates with the Air Force Board Structure on matters relating to Secretary of the Air Force Program Reviews (SPRs). Analyzes HQ USAF program management directives (PMDs) and provides implementary guidance and direction via AFSC Form 56. Provides HQ AFSC focal point for Foreign Military Sales (FMS) activities. Serves as member of the HQ USAF/HQ AFSC Research-Development-Acquisition (RDA) Council and represents the Commander, as necessary, at Air Staff Board and Air Force Council meetings. Provides a System Officer (SYSTO) for each

program under DCS/Systems cognizance.

DCS/ Test and Evaluation (TE): Develops and implements AFSC test policies and procedures. OPR for interface with Air Staff, Air Force Test & Evaluation Center (AFTEC), Major Commands, and AFSC responsible test organizations (RTOs) on T&E matters and problems. Designates RTOs and participating test organizations (PTOs) based on capabilities and missions of test agencies. Reviews key program documents such as AFSC program direction, program management plans, draft T&E objectives annexes, and T&E master plans to determine compliance with test policies, availability of required support, and adequacy of the test program. Is Command focal point for OT&E. Provides overall staff cognizance for major and special interest non-major DT&E programs conducted by AFSC T&E activities (as opposed to day-to-day surveillance and reporting which is the responsibility of DCS/Systems). Provides staff cognizance over AFSC field commands with T&E missions. OPR for the planning, acquisition, and operation of support resources for AFSC range and test centers. Manages the AFSC flying program. Has primary staff responsibility for the AFSC War and Contingency Plan. Monitors and operates the Andrews Operations Center.

Director of Science and Technology (DL): Manages the Air Force research, exploratory development, and assigned non-systems advanced development programs. Determines allocations of funds provided to research and exploratory development programs. Provides guidance,

direction, and surveillance of research, exploratory development, and advanced development programs. Ensures that advanced development programs are executed according to higher headquarters direction and resources provided. Disseminates results of those science and technology programs and promotes their application. Works with the DSC/Development Plans to establish requirements for science and technology efforts to support future Air Force weapon systems. Maintains operational control of laboratories. Ensures technology advances and laboratory technical expertise are brought to bear on the systems acquisition process. Acts as the Commander's principal scientific and technical advisor. Provides principal interface with the Scientific Advisory Board (SAB), National Academy of Sciences (NAS) and other scientific and technical organizations. Oversees the technical evaluation portion of the Industrial Research & Development (IR&D) Program.

SECTION IV

HQ AFSC SYSTEM OFFICERS

System Officers, commonly referred to as SYSTOs, serve as the Headquarters focal points for AFSC acquisition programs. SYSTOs are the HQ AFSC counterparts of HQ USAF Program Element Monitors (PEMs) and perform a comparable function of program monitorship, source of information on assigned programs, and focal point for all headquarters staff activity pertaining to their programs. Because of the complex and interdepartmental nature of systems acquisition, a focal point is required for each program on which HQ USAF issues a Program Management Directive.

SYSTOs are both military and civilians--however, most are military. Grades run from captain through colonel although the majority are majors and lieutenant colonels.

The SYSTO serves as the HQ AFSC source of detailed information on all aspects of his program and is a mandatory coordination point on all matters affecting the program including correspondence, documentation, reports, resource allocation, and functional activities. From the HQ AFSC standpoint, his primary function is to keep top management informed regarding program status (to avoid surprises) and to integrate functional staff efforts in order to obtain a balanced Command position. The SYSTO also serves the program director as his Washington area representative

and maintains a daily working relationship with the program office and PEM to insure a continuous flow of current information in both directions.

As indicated by the above, the SYSTO is a key member of the program team. An effective SYSTO can provide significant assistance to the program office, such as by defending the program during Headquarters budget exercises, in preventing unnecessary staff actions being placed on the program office by Headquarters agencies, and by handling routine correspondence and requests for information directly. The SYSTO can also be extremely helpful to the program office in coordinating Command support such as during an airlift or by obtaining a flight test priority. The functional staff provides the key support and the SYSTO acts as the integrator to pull it all together into an organized Headquarters effort.

An expanded list of duties and functions of the SYSTO is contained in AFSC Regulation 800-22.

SECTION V

FUTURE ACQUISITION

The primary HQ AFSC activities which support future acquisition of systems and equipment are Mission Area Planning, Investment Strategy, Required Operational Capability Review, and Business Strategy Panels.

Mission Area Planning

Mission Area Planning is a process of continual evaluation of all major influences affecting the future development and deployment of systems contributing to a given Air Force mission. Mission Area Planning requires consideration of the threat, current, programmed and planned U.S. forces, the potential of new technology, statements of Required Operational Capabilities from the major commands, and a broad range of documents and studies relating to the mission. The process establishes a Mission Area Overview or broad perspective of the elements within a given mission area. The Mission Area Overview is an essential first step in the planning process.

Mission areas addressed by AFSC planners are: strategic offense; strategic defense; tactical; airlift; command, control and communications; reconnaissance/intelligence; support; training; and technology development. Functions which are common to two or more mission areas and warrant special attention because of operational or cost considerations are addressed in a Functional Area Overview. Examples of Functional

Area Overviews are navigation, communications, propulsion, and life support.

The procedures that have been developed for Mission Area Planning provide a statement of the major issues and definition of program alternatives to resolve these issues. The alternatives are developed consistent with projected budget constraints and force deficiencies. An important part of each alternative is the rationale which explains why the alternative has been considered. The issues and alternatives are then discussed within AFSC and with the concerned major command(s). This dialogue results in a set of program alternatives which illuminate the relationships between research and development programs, projected threat, operational need, potential technological solutions, acquisition programs, and force structure. The objective of this process is to provide the AFSC Commander with an additional means of making cost and capability decisions when comparing systems, concepts or technologies; a basis for long term RDT&E and procurement budgetary recommendations; identification of areas where programs are needed to cover gaps in future operational and technological capabilities; and a framework for exploratory and advanced development planning.

DCS/Development Plans is responsible for Mission Area Planning. They are concerned principally with correlating programmed forces, projected threat options, required operational capabilities, capability options, and preparing development goals to guide technology advancement.

AFSC field organizations are concerned principally with mission analyses and tradeoff studies which serve as inputs to Mission and Functional Area Overviews. DCS/Development Plans directs and approves the field analyses. Other HQ AFSC staff agencies and field organizations provide assistance and information as required.

Investment Strategy

The Air Force technology base involves activity in extremely diverse disciplines. One of the most difficult problems in managing this technology base, particularly the 6.2 exploratory development effort, has been the determination of the best distribution of investment resources among the disciplines. Another problem is to cull out activities which are not relevant to future needs. AFSC's answer to this problem is the Investment Strategy approach. The base line for this approach is the development goals package developed during Mission Area Planning. Under the leadership of a joint planning group headed by HQ AFSC/XR and HQ AFSC/DL "technologists" from the laboratories and "development planners" from AFSC product divisions make a joint assessment of the relative payoff of the laboratories' technology programs in terms of the established development goals and priorities. This matrix type of comparison in which each laboratory is judged against a common set of goals, provides insight regarding relative benefits, identifies interdependencies (and duplication), and provides a basis for recommended shifts of emphasis, funds, and

manpower among programs.

Investment Strategy is a continuous, iterative process of refining goals, adjusting programs, evaluating progress, and revising strategy. The overall objective is to insure that the AFSC laboratories are working on the right things in consideration of operational needs, high pay-off areas, resource allocations, program timing, and what other organizations are doing. Current activity in this area is focusing on several under-emphasized technologies including technology for life cycle cost, weapons terminal guidance, anti-jam communications, and data processing/fusion.

Required Operational Capability (ROC) Review

Draft statements of Required Operational Capability (ROCs) are sent to HQ AFSC/XR (AFSC OPR) from originating major commands; final version ROCs are sent to HQ AFSC/XR from HQ USAF/RDQ. HQ AFSC/XR assigns each received ROC to the cognizant DCS which in turn forwards it to appropriate HQ AFSC staff agencies and field organizations for review. Requested comments on draft ROCs include technical feasibility, suggested alternatives, cost estimates, and changes to improve the ROC. The HQ AFSC cognizant DCS integrates inputs to develop the AFSC response. In most instances the HQ AFSC comments will be incorporated by the originator in the final published ROC. Comments provided to HQ USAF on published ROCs include preliminary cost estimates, proposed development/acquisition schedule, and alternate solutions and recommendations.

Business Strategy Panels

To assure that program offices receive maximum assistance in the business area, HQ AFSC/PP convenes Business Strategy Panels for all major procurements, i.e., procurements for which the Source Selection Authority is the Secretary of the Air Force and all procurement subject to DSARC review. Field panels are convened by the Commander or Director/Procurement and Production of the field activity at the request of a program director of a high-interest or complex program.

The principal function of a Business Strategy Panel convened by HQ AFSC or a subordinate authority is to make the program office aware of "lessons learned" from recent procurements. The objective is to insure that the procurement strategy selected is the one that best satisfies program requirements and objectives. Panel recommendations are advisory only and no formal direction results from the meeting. Minutes are prepared but are limited to documenting major points discussed by the panel.

Panels may be convened any time during the program life cycle either to formulate a new procurement strategy or to re-evaluate existing strategy in light of recent events. Topics considered by the panel include impact of new policies, possible new procurement techniques, competition, special clauses, design-to-cost, life-cycle-cost, reliability incentive warranties, sharing incentives, schedules, options, funding profiles, and advanced procurement and source selection plans.

Panel membership is tailored to fit each individual procurement. However, the HQ AFSC Panel Chairman is normally the Special Assistant to the DCS/Procurement and membership will include the program director, the procuring contract officer, and a staff member from the Procurement and Production office to provide continuity during subsequent field level reviews. Representatives from the Office of the Secretary of the Air Force, Air Staff, HQ AFSC staff elements, AFSC, and other major commands may be invited to participate in panels reviewing procurements of special interest to those organizations. Business Strategy Panels have been in existence within AFSC since 1974 and have proven to be highly successful and beneficial at both HQ AFSC and field levels.

SECTION VI

CURRENT ACQUISITION

This section will discuss the primary activities performed by HQ AFSC in the management of current acquisition efforts, i.e., Program Direction, Program Review Process, Joint Operational and Technical Reviews, and Financial Management.

Program Direction

Providing program direction to field activities is an essential function of HQ AFSC. This process normally starts with the receipt of a Program Management Directive (PMD) from the Air Staff which directs a specific effort. HQ AFSC follows with an AFSC Form 56 which transmits the PMD to the field and provides amplifying direction. A Form 56 is also used to convey direction for efforts internally generated by HQ AFSC. Typically a Form 56 assigns responsibility within AFSC (including lead and supporting organizations and the responsible test organization), specifies management relations, addresses manpower resources, provides financial guidance, and levies special requirements such as tests, environmental protection, and reporting. The majority of Form 56s add little supplementary direction to the PMDs issued by HQ AFSC since the PMDs are normally coordinated in draft with HQ AFSC before issue.

The staff office in HQ AFSC responsible for overall staff action on the program in question is responsible for the formulation, coordina-

tion, and release of the Form 56. This responsibility includes:

- Disseminating the PMD for review and comment by other Headquarters staff offices.
- Incorporating direction provided by the other staff offices in the Form 56.
- Coordinating and dispatching the Form 56.
- Implementing HQ USAF direction by releasing the Form 56 as soon as possible. OPRs are required to complete Form 56 action within eight working days after receiving the HQ USAF direction. Interim Form 56 direction may be issued when time is of the essence, but must be followed by issuance of fully staffed direction.
- Negotiating proposed minor changes to the PMD with the Air Staff. In the case of major discrepancies in direction or a mismatch of tasking and funds, the PMD is returned to the Air Staff for review.

Program Review Process

The program review process is one of the most important functions performed by the Headquarters. Its purpose is to afford recurring top-level management visibility and attention to the requirements of significant AFSC system programs and test resources. As such, it provides a direct channel from program managers and AFSC field commanders to the decision-authority level, which permits timely decision and effective functional support. Specifically the reviews are intended to:

- Alert senior managers to potential problems that may impact performance, schedule or cost thresholds.
- Provide continuity of information describing current status, problems, significant accomplishments, and progress of selected programs.

- Identify causes and effects of specific major problems and significant accomplishments that may impact other programs or activities.
- Ensure that top management keeps factors and interfaces affecting the progress of systems programs in perspective.

There are three basic types of recurring program reviews conducted by HQ AFSC as described below:

Program Assessment Review (PAR)/Secretary of the Air Force

Program Review (SPR). These are quarterly reviews conducted at HQ AFSC, HQ USAF and Air Force Secretary levels on major programs as designated by the Secretary. Currently there are 18 programs in this category. The information presented at the SPR is basically similar to that presented at the HQ AFSC PAR. Briefings are normally limited to thirty minutes with the format following guidance provided in AFSC Pamphlet 800-23. PAR/SPR presentations are made to the AFSC Commander, the Air Force Council with the Air Staff Board in attendance, and to the Secretary of the Air Force. Minimum PAR attendance normally includes the Commander, Vice Commander, Chief of Staff, DCSs, AFSC division commander (optional), the program director, SYSTO and PEM. Selected staff members from HQ AFSC, AFPRO and the program office may attend as well as representatives of other commands with approval of the Commander or Vice Commander. Attendance at the reviews presented to the Air Force Council and subsequently to the Secretary is tightly controlled. Attendance at Council reviews is limited to Council/

Board members, executive secretaries, the senior HQ AFSC representative (normally DCS/Systems), Air Staff OPR Director, briefer, PEM and SYSTO. AFSC personnel permitted to attend the Secretarial reviews consist of the Commander or Vice Commander, briefer and SYSTO.

Command Assessment Review (CAR). A CAR is a program management review conducted at HQ AFSC only which features presentations on the status of programs selected by the AFSC Commander which are of lesser priority and importance than PAR programs. CAR presentations are primarily internal AFSC briefings, but outside agencies having interfaces with the programs may be invited with the approval of the Commander or Vice Commander. CARs are normally presented quarterly. Thirty-nine programs are currently designated as CAR programs.

Field Assessment Review (FAR). A FAR is a formal management review of an AFSC field command. It is usually briefed by the field commander to the AFSC Commander and staff at HQ AFSC. The briefing reviews areas selected by the field commander and covers: mission, test support, manpower, budget, and problem areas. The FAR is normally presented once a year by each designated field commander with a 60-minute time allotment.

DCS/Systems is responsible for administering the PAR/CAR process, establishing the content and format of briefing charts, and publishing PAR/CAR guidance. DCS/Test and Evaluation is responsible for administering the FAR program.

Joint Operational and Technical Review (JOTR)

In late 1974, AFSC instituted a procedure for joint review of acquisition programs by the AFSC Commander and commanders of the primary operating and support commands. These reviews were designated Joint Operational and Technical Reviews (JOTR). JOTRs are designed to facilitate joint action by the commanders to avoid unnecessary acquisition costs by reducing marginal requirements, protect requirements essential to operational effectiveness, and obtain support for RDT&E efforts necessary to minimize life cycle costs.

JOTRs are held on DSARC programs and other programs and projects designated by the AFSC Commander. Per AFSC Regulation 800-18, the cognizant HQ AFSC DCS ascertains the need for a JOTR at three points in the acquisition cycle and forwards a recommendation for or against initiation of a JOTR to the Commander. The three scheduled points are: before inputs are forwarded to HQ USAF for inclusion in the initial decision coordinating paper or program memorandum, prior to release of the RFP for full scale development, and at approximately the midpoint of the full scale development.

In addition to the scheduled JOTRs, commanders of the operating and supporting commands, HQ AFSC DCSs, commanders of AFSC field commands, and AFSC program managers may request a JOTR on an unscheduled basis in response to changes in threat, operational or support

concepts, budget, available technology, etc. The cognizant HQ AFSC DCS coordinates these requests with the interested agencies and forwards them to the AFSC Commander with a recommendation for or against initiation of a JOTR.

The actual JOTR is a three phase, one hour briefing consisting of an operational presentation by the operating and supporting commands, a technical presentation by the responsible AFSC agency, and a trade-off presentation during which representatives of the operating, supporting, and developing commands present their preferred options for major performance/cost/schedule trade-offs. The JOTR is concluded with mutually acceptable trade-off options or Command positions. The participants then prepare a joint memorandum for record or letter to the Chief of Staff summarizing major points, agreements reached by the commanders, actions directed by the commanders, and recommendations for Chief of Staff action.

JOTRs have been held on numerous occasions since the procedure was initiated and have proven to be an effective vehicle for obtaining joint agreement on program problems. As an example, the A-10 JOTR held in May 1975 resulted in the identification of a group of cost reduction candidates with a potential cost saving of \$28,000 per aircraft and overall logistics savings of \$32 million. As a result of the success of the JOTR process, "mini-JOTRs" are now being scheduled for problems not requiring direct participation at the four star level.

Financial Management

The financial aspects of program management have taken on increasing importance within AFSC during the recent years. Headquarters involvement in these activities is at a peak during the budget call reviews in the Spring and Fall. The objective of the Spring review is establishment of an Air Force program to be reflected in the Program Objective Memorandum (POM) and Five Year Defense Program (FYDP). The objective of the Fall review is formation of an Air Force budget recommendation to OSD. While the objectives of the reviews differ, the procedures followed are very similar. The focal point for the HQ AFSC Budget Call review is the Program Evaluation Group (PEG). The PEG's members are the assistant DCSs plus the Deputy Director of Science and Technology. The Assistant DCS/Comptroller chairs the group.

The process begins with a PEG meeting to scope the magnitude of the funding problems associated with the budget submission. The purpose of this **initial** review is to establish how much funding the field organizations have recommended, by fiscal year, and compare it to the approved funding reflected in the baseline FYDP. Concurrently, SYSTOs prepare their comments and recommended funding on a Program Element Summary Sheet (PESS). The next step is a scrub by the individual DCS/Director organizations. The PEG then reconvenes to conduct a scrub on every program element in the budget call package using the DCS/Director scrubs as a point of departure. As proposed cuts are made, SYSTOs are

given the opportunity to reclama.

Upon completion of the PEG scrub, a funding total is recomputed for the fiscal year being considered. If the proposed AFSC program is over budget at this time, a "bogey" is established on the basis of total funding required less the approved funding for that fiscal year. Instead of reviewing the program elements again, the PEG may pass prorated shares of the bogey to the individual DCS/Directors with instructions to balance their budgets.

In the latter stages of this process PEG members meet with members of the Air Staff Program Review Group (PRG). At this time the PRG is in the early stages of reviewing budget submissions which have been scrubbed by the PEG. The purpose of this joint meeting is to resolve issues on differences in tentative positions prior to finalizing the AFSC budget recommendation to the Air Staff. If the PEG is still confronted with an unbalanced budget after their meetings, it may direct an across the board cut in a number of program elements, major cuts in a few large programs, or delays or cancellation of new starts. Finally the PEG submits its recommendations to the AFSC Council which resolves any outstanding issues. The AFSC Council is chaired by the Vice Commander and includes the Chief of Staff, DCSs, Staff Judge Advocate, Command Surgeon, and Inspector General. Transmittal of the AFSC recommended program to HQ USAF completes the review process at HQ AFSC.

During the fiscal year, HQ AFSC processes unfunded requirements and requests for forward financing from field agencies. Processing unfunded requirements consists of a review and validation of the requirement, identification of a source of funding (normally from a lower priority program), and a decision to forward or not forward the request to HQ USAF or whether or not to approve the request directly if it is within the \$500K limit delegated to HQ AFSC. Forward financing involves obtaining permission to obligate funds for future services beyond the financial year for which these funds were appropriated. Both reprogramming and forward financing have decreased in frequency of occurrence as a result of recent HQ USAF and HQ AFSC actions to improve fiscal discipline.

DSC/Comptroller monitors the financial status of all AFSC programs throughout the year through the PAR/CAR process, review of financial reports submitted by the program offices, and by Program Financial Reviews conducted on a quarterly basis at each of the major field activities by the HQ AFSC Comptroller Staff with representatives from the HQ AFSC technical staff and Air Staff. The purpose of these reviews is to provide an opportunity for presentation of financial problems to higher echelons, to obtain guidance or assistance, and to check on the status of financial housekeeping such as obligation and expenditure rates, unliquidated obligations, and status of operating budgets.

SECTION VII

POLICY

Development and dissemination of policy to guide field activities in the accomplishment of the AFSC mission is a fundamental Headquarters responsibility. Mechanisms by which this is accomplished include AFSC regulations, manuals, pamphlets, design handbooks, Command policy letters and less formal methods such as newsletters, program reviews, Business Strategy Panel meetings, and the Program Management Assistance Group (PMAG).

Program Management Assistance Group (PMAG)

The Program Management Assistance Group (PMAG) was established in September 1975 with the Special Assistant for Program Assistance reporting directly to the AFSC Commander. The PMAG has four principal functions: assists in the resolution of program problems, conducts continuing evolution of acquisition procedures and problems, serves as a catalyst for revising policy and procedures, and provides early problem identification. Because of its structure and method of operating, the PMAG has the perspective to see a wide application of lessons learned. The PMAG therefore serves as a focal point for disseminating unique and meritorious acquisition practices and lessons learned throughout the Command. Of the four functions, early problem identification is the most important. By identifying problems early at the proper level—the program office, pro-

duct division, HQ AFSC staff, or to the Commander—the problems can be eliminated or alleviated before they become serious. The PMAG conducts both formal reviews and on-call assistance. Formal reviews are accomplished by teams of from 15 to 20 experts in various systems acquisition functions. On-call assistance is specialized and provided by two or three PMAG members. Through the end of 1976, nine formal reviews and six on-call efforts had been conducted.

Formal reviews are directed by the AFSC Commander. They are accomplished to obtain an objective view of a program's health and to provide assistance to the Program Director. Because of the significant expenditure of manpower and funds required to properly accomplish a PMAG review, only selected programs are chosen. Normally a program is selected because of marginal or unsatisfactory status as reflected in CAR/PAR briefings or due to an impending major decision milestone, such as a production or full scale development decision. At the conclusion of the visit, the PMAG team chief briefs the program director on results of the visit, recommendations for program office action, and recommendations for Headquarters action. Upon return to HQ AFSC, the team chief briefs the results to the Commander and staff. Lessons learned and successful unique practices are given widest possible dissemination in the DCS/Systems Newsletter and other publications and by periodic briefings at product division level.

On-call assistance may be obtained by direct contact between the program director and the PMAG. The output of this assistance may be either a complete unit of work, such as a report or evaluation, or whatever the program director requires. Requests for on-call assistance occur when a program director is faced with tasks his organization is not properly equipped to handle. These situations typically occur early in a program when all personnel have not yet been assigned, when a suddenly directed increase in program scope occurs without an increase in manpower, or prior to a major decision milestone.

Joint Logistics Commanders (JLC)

Policies and procedures which have multi-Service application are addressed by the Joint Logistics Commanders (JLC) organization. The JLC organization was formed during the mid-1960s in recognition of the need for more inter-Service coordination and cooperation among the organizations responsible for the acquisition and logistics function, currently the Army Development and Readiness Command, Naval Material Command, Air Force Systems Command and Air Force Logistics Command. JLC objectives are to increase military effectiveness through economy of resources, improve management policies and procedures, and arrive at common solutions to mutual problems.

Over the past nine years, the JLC objectives have been met by the efforts of numerous groups and panels comprised of representatives from

each of the commands. There are now 32 active panels and groups with over 1,300 members plus a secretariat at each command headquarters. Tasks cover the entire spectrum of development, procurement, and weapon system support. Examples of activities in which HQ AFSC is heavily involved include the Design to Cost Panel, Munitions Development Coordination Group, Aircraft Survivability Joint Coordination Group, and Remotely Piloted Vehicles Coordination Group. The results of JLC efforts have led to substantial cost savings and improved effectiveness. As a result, the organization continues to receive high attention and consideration throughout the DOD.

Current Policy

Since General William J. Evans assumed command of AFSC in August 1975, the emphasis at the Headquarters has been on management aspects of the acquisition process. The tone was set in a 15 October 1975 letter to General David C. Jones, Air Force Chief of Staff, in which General Evans stated:

"Like you, I recognize our failure to consistently apply good business practices in the acquisition of major weapon systems. Our life-long emphasis on performance—and in recent years, technology—has relegated other considerations to a secondary role."

General Evans further informed General Jones that he was placing greater responsibility with the procurement, legal, and logistics personnel so that there would be "a more thorough scrub of programs." General

Evans also stated that he was initiating a policy of challenges within the AFSC staff to counterbalance and offset the "advocacy role in the SPO." Further on he stated that he intended to strengthen the Business Strategy Panels to provide full coverage of the life cycle cost and logistics areas. In a second major policy letter dated 7 January 1976, General Evans informed the field commands that a review of on-going programs indicated that management attention devoted to the support and testing aspects had been insufficient and would have to be increased.

Implementation of the management concepts advocated by General Evans quickly followed and resulted in the following major actions:

- Greater functional involvement by management organizations such as procurement, comptroller, legal and logistics.
- Increased dialogue between the staff and field functional activities to take advantage of all talent available to "avoid surprises."
- The role of procurement and production as a function was strengthened. The production function was transferred from DCS/Systems to DCS/Procurement at Command Headquarters and elevated to a directorate; production management was revitalized at the product divisions.
- DCS/Operations was redesignated DCS/Test and Evaluation as a first step toward development of a more active Headquarters role in the test area.
- DCS/Logistics was given increased responsibility for policy formulation, review of weapon system and support planning, and participation in formulation of weapon system maintenance and support concepts.

Another facet of the revitalization of support functions was matrix management of the Command's fiscal and production personnel. Although use of that concept was not a new approach in R&D management, it was an innovation within AFSC. Basically, the concept called for the reassignment of all fiscal and production personnel from a program office to the product division's Deputy for Procurement and Manufacturing and its Comptroller. The rationale for the move was increasing manpower shortages and an effort to enhance professional development of functional skills and cross-fertilization of ideas.

In another major effort to improve management, the AFSC Commander instituted a program designed to improve personnel management practices in the program manager career field. Innovations HQ AFSC has put into practice include tracking top-rated AFSC personnel in a "Blue Room" at the Headquarters, controlling assignments of program management personnel in line with career progression profiles, and exchange programs with other Air Force Commands and with industry. Names of 650 holders of key jobs with ranks of colonel or above are posted on the Blue Room boards. Addition of officers below the rank of colonel and civilians ticketed for special attention brings the number to over 1,000. Assignment to about 140 of the key positions requires the personal approval of the AFSC Commander.

SECTION VIII

SUMMARY

As the previous sections have described, HQ AFSC is far from being only a "mail drop" as has sometimes been alleged. As can be seen, the Headquarters plays an extremely active role in the Air Force acquisition process beginning with early development planning and continuing through the development and production program until production items have successfully entered the inventory and the system has transitioned to Air Force Logistics Command management.

It is important for the staff officer at HQ AFSC, and his counterparts in the field as well, to understand the major activities and events that occur at HQ AFSC during the acquisition process, such as Business Strategy Panels, the Headquarters role in budgeting and financial management, program direction responsibilities, and program review procedures. It is also important to understand the roles of the key functions such as the DCSs, PEG, SYSTO, PMAG and their relationships to the program office. Hopefully this paper will provide insight into these functions.

Finally, the discussion on policy in the last section summarizes recent management changes implemented by the AFSC Commander. Key changes are increased use of matrix organizations to conserve personnel resources and to improve corporate memory/cross feed; increased emphasis on system supportability; test and evaluation; manufacturing and

procurement; and a program manager development program which includes special tracking of outstanding personnel.

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AFSC Regulations

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AFSC Regulations (continued)

25-2, 8 March 1974, "The AFSC Council." This regulation prescribes the responsibilities, organization and functions of the AFSC Council.

27-1, 30 November 1976, "Program Direction." This regulation establishes policy, assigns responsibility, and provides procedures for preparation and distribution of AFSC program direction.

27-2, 14 May 1976, "Program Evaluation Group." This regulation establishes the purpose, organization, responsibilities, and operating procedures of the Program Evaluation Group.

27-6, 20 September 1974, "The AFSC Programming Process." This regulation describes the programming process performed throughout AFSC in accomplishing the development and acquisition effort. It provides a broad overview of AFSC participation in the DOD Planning, Programming and Budgeting System.

27-8, 20 June 1975, "Program Financial Reviews." This regulation establishes requirements for periodic financial reviews of Command programs.

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